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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/564,148	11/09/2006	Malgorzata Konieczna	PB60333USw	6122

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EXAMINER	
VU, JAKE MINH	

ART UNIT	PAPER NUMBER
1618	

NOTIFICATION DATE	DELIVERY MODE
03/13/2009	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/564,148	KONIECZNA ET AL.	
	Examiner	Art Unit	
	JAKE M. VU	1618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05 January 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-11 and 15-19* is/are pending in the application.

4a) Of the above claim(s) *15-17* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-11,18 and 19* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Receipt is acknowledged of Applicant's Amendment filed on 01/05/2009.

- Claim 1 has been amended.
- Claims 18-19 have been added.
- Claims 1-11 and 15-19 are pending in the instant application.
- Claims 15-17 have been previously withdrawn from consideration.

Claim Rejections - 35 USC § 102

Claims 1-11 are rejected under 35 U.S.C. 102(b) as being anticipated by MITRA et al (US 5,955,105) as evidenced by HANDBOOK (Handbook of Pharmaceutical Excipients: 5th edition. pg. 134, 725 and 731 (2006)) and MSDS (Material Safety Data Sheet: L-Thyroxine, sodium salt) **are maintained** for reasons of record in the previous office action filed on 09/05/2008 and as discussed below.

Applicant argues that pregelatinised starch is not water soluble, since the European Pharmacopoeia stated at page 1438 that pregelatinised starch swells in cold water. This clearly shows that it does not dissolve in water. The Examiner finds this argument unpersuasive, because swelling in cold water does translate into incapable of dissolving in water. Additional proof can be seen in The Handbook of Pharmaceutical Excipients at page 732, 1st column under Typical Properties, wherein the Handbook teaches pregelatinized starch is soluble in cold water.

Applicant argues that the starch used in Example 10 of MITRA must be water soluble to fall within the scope of the invention claimed therein. The Examiner finds this

argument unpersuasive, because as discussed above, Applicant's pregelatinized starch is also water soluble.

Applicant that since the pharmaceutical formulations of Applicants' claims include pregelatinised starch, which is not water soluble, whereas MITRA disclosed pharmaceutical formulations including a water-soluble glucose polymer, novelty is established. Specifically, the formulation of Example 10 includes water-soluble starch. Therefore, the claims of the present application are not anticipated by MITRA. Applicants submit that this feature of their claimed invention (i.e., pregelatinised starch is not water soluble) is sufficient to distinguish over the cited document. The Examiner finds this argument unpersuasive, because as discussed above, Applicant's pregelatinized starch is water soluble.

Claim Rejections - 35 USC § 103

Claims 1-11 and 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over MITRA et al (US 5,955,105) as evidenced by HANDBOOK (Handbook of Pharmaceutical Excipients: 5th edition. pg. 134, 725 and 731-732 (2006)) and MSDS (Material Safety Data Sheet: L-Thyroxine, sodium salt) in view of EUROPEAN (European Pharmacopoeia (2002) pg. 1438) and FRANZ et al (US 2003/0032675) **are maintained** for reasons of record in the previous office action filed on 09/05/2008 and as discussed below.

Note, MITRA teaches using talc and colloidal silicon dioxide as glidents (see col. 4, line 35-36; col. 5, line 29-32; col. 8, Example 10); and 0.025mg and 0.100mg of

levothyroxine (see co. 16, line 48). Additional disclosures include: the amount of the thyroid hormone that is conventionally used in the prior art have a content of 25 micrograms to 300 micrograms (see col. 5, line 14-20).

As discussed in the prior office action, the references do not specifically teach adding the ingredients in the exact amounts as claimed by Applicant. The amount of a specific ingredient in a composition is clearly a result effective parameter that a person of ordinary skill in the art would routinely optimize. Optimization of parameters is a routine practice that would be obvious for a person of ordinary skill in the art to employ and reasonably would expect success. It would have been customary for an artisan of ordinary skill to determine the optimal amount of each ingredient to add in order to best achieve the desired results, such as stability. Thus, absent some demonstration of unexpected results from the claimed parameters, this optimization of ingredient amount would have been obvious at the time of Applicant's invention.

Applicant argues that Applicants' claims differ from what is disclosed in MITRA (particularly Example 10 therein) in that the present invention employs pregelatinised starch instead of water-soluble starch. As noted above, pregelatinised starch is not water soluble. The Examiner finds this argument unpersuasive, because as discussed above, Applicant's pregelatinized starch is water soluble.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.,* 800 F.2d 1091, 231 USPQ 375 (Fed. Cir.

1986). In this instance, Applicant argues that FRANZ does not teach any quantities of the various excipients were provided, and there was no suggestion that this combination has any particular advantage over other commercially available formulations of levothyroxine sodium. Moreover, no evidence was presented that it would have been obvious to modify the formulation in Example 10 of MITRA by using the specific excipients of FRANZ's specific formulation in claim 6 with a reasonable expectation of success. The Examiner finds this argument unpersuasive, because FRANZ is a secondary reference, as discussed in the previous office action, to show that the prior art had used pregelatinized starch with levothyroxine; thus, there would be a reasonable expectation of success when the references are combine.

Applicant argues that MITRA makes it essential to use a water-soluble glucose polymer, one of ordinary skill in the art would not have had a reason to consider obvious its replacement by pregelatinised starch (i.e., a water- insoluble glucose polymer). Finally, Applicants note out that Example 10 of MITRA is not disclosed as a preferred embodiment - the preferred embodiments contain 13- cyclodextrin, hydroxypropyl-13-cyclodextrin, or especially maltodextrin (see column 3, lines 52-57) - and one of ordinary skill in the art would have had no reason to single out Example 10 for use as the starting point for modifying the formulation. In fact, MITRA teaches away from Applicants' claimed invention because the cited document requires use of a water-soluble glucose polymer instead of pregelatinised starch, which is not soluble in water. The Examiner finds this argument unpersuasive, because as discussed above, Applicant's pregelatinized starch is water soluble.

Applicant argues that even if one of ordinary skill in the art were to combine what is disclosed by claim 6 of FRANZ and Example 10 of MITRA, there is no suggestion in either document that such a combination would lead to a formulation having the particularly advantageous stability and disintegration characteristics as disclosed in the present application. The Examiner finds this argument unpersuasive, because as discussed in the previous office action, stability and disintegration characteristics are desired results of optimizing the amount of ingredients.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Telephonic Inquiries

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAKE M. VU whose telephone number is (571)272-8148. The examiner can normally be reached on Mon-Tue and Thu-Fri 8:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Hartley can be reached on (571) 272-0616. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jake M. Vu/
Patent Examiner, Art Unit 1618